RENEW Wisconsin's Comments on Docket 5-FE-100: Quadrennial Planning Process II, regarding five specific issues with comments due March 14, 2014.

RENEW Wisconsin appreciates the opportunity to respond to the Commission's Request for Comments on these important questions that will guide the Focus on Energy Program from 2015-2018.

Our comments are as follows, corresponding with the five question areas:

1. Renewable Energy

Generic comments on the renewable energy program are as follows:

- **Funding for the renewable energy program should not be turned on and off like a faucet.** The program design should be such that incentives are available, consistent, and predictable for all parties (installers, customers, program administrator, subcontractors, and others). As one best practice guide states: "Consistency and duration improve the use of the incentive by avoiding confusion in the market and building awareness of the rebate."[1]

- **The renewable energy program design should accommodate the full expenditure of the renewable energy budget as allocated.** All three Commissioners mentioned in an open meeting that the program should strive to spend the entire budget each year.[2] The Commission should eliminate conflicting metrics that constrain annual expenditures.

- **Renewable technologies should not have their spending tied to each other.** Expenditures on renewables should be driven by customer demand, irrespective of technology, and the program administrator should accommodate customer preferences accordingly up to the maximum amount budgeted.

- **Renewable energy program accounting should be based on allocated or obligated projects, and not on actual expenses**. The best way to reasonably account and plan for program expenses is based on the approved projects and the funds obligated in the program year, because different technologies and project sizes require much different timelines. Accounting should not be based on dollars spent in the year, because that metric is out of the

[1] Kubert & Sinclair, "State Support for Clean Energy Deployment: Lessons Learned for Potential Future Policy." National Renewable Energy Laboratory Subcontract report. Available at http://www.nrel.gov/docs/fy11osti/49340.pdf.

[2] In the Open Meeting of July 26, 2013, the Commissioners reiterated that the Focus on Energy Program Administrator should plan their annual program to spend the fully allocated budget on renewables, and not a lower target.

program administrator's control. If large projects are obligated but not ultimately paid, the program administrator can reissue funds accordingly.

- **Regarding residential/small commercial offerings, the incentive for solar PV systems should be commensurate with the electric usage of the customer, and not capped at $2400.** An appropriately sized solar PV system is one that produces energy up to the customer's full electric usage. These levels will vary from one customer to the next, depending on building size and use patterns. Therefore, incentive levels should not be arbitrarily capped based on the customer class, whether residential or small commercial.

- **The Wisconsin renewable energy industry should be more engaged in the program design process**, including but not limited to:
    - Vetting decision-making reports for technical and economic accuracy
    - Vetting assumptions being used before an official benefit-cost ratio is used to make policy decisions
    - Program design review and suggestions before program startups

- **A revolving loan fund can be an effective supplement to Focus on Energy's rebates. However, a loan program can't substitute for rebates.** A supplemental revolving loan program based on the Iowa Alternate Energy Revolving Loan Program (AERLP) could be successful in Wisconsin.
    - Please see our further comments in Appendix A.

A. Appropriate goals and funding levels for renewable resource programs

- **The goal of the renewable resource program should be to build sustainable markets for renewable energy resource installation in Wisconsin.** This means balancing the program between resource acquisition and market transformation. Focus on Energy should endeavor to:
    - Maintain a presence in all statutorily allowed renewable technologies and the range of market segments, including bioenergy, geothermal, hydro, solar electric, solar thermal, and wind.
    - Provide early and additional assistance to project developers
    - Use Focus on Energy incentives to leverage additional financial resources for projects
    - Team with utilities to reduce barriers to development
    - Maintain flexibility to shift resources based on market opportunities
- Numeric energy production goals for the renewable energy program should be established separate from the energy efficiency program. For example, the Energy Trust of Oregon, which operates a similar statewide program to Focus on Energy, has separate goals for efficiency and renewables (and natural gas) because the methods to achieve those savings, and the markets to be developed and sustained, are very different.
- Reasonable goals should be developed for attaining energy and demand production from renewable resources based on the fully allocated budget of at least $10 million per year. These goals should be developed and vetted with stakeholders to be achievable goals for the program and the industry.

B. Renewable resource program cost-effectiveness

- Any cost-effectiveness tests should utilize a full value analysis that considers federal tax credits, accurate measure lives, effective increase in generating capacity, transmission & distribution savings, fuel costs, risk reduction from future rate increases, and environmental benefits including carbon, health, and cost savings from meeting future regulations from pollution rules.
- A separate cost-effectiveness test should also consider economic impacts such as job creation and the progress on building a sustainable market for renewable energy. For example, the recent economic impacts evaluation[3] shows renewables program alone has a TRC of 1.99.
- All variables that are used to calculate cost-effectiveness should be transparent and available to the public for review and input. The evaluator should collect input up-front from professionals to vet the values to be used.
- If used, any 'expanded TRC' metrics should also be transparent, and the values that are used for each technology should be made public for review and input.
- Measure costs should not simply use historic data from Focus on Energy, but should include the most recent data from a variety of sources. The installed costs of solar photovoltaic systems have dropped dramatically in recent years (approximately 50% cost reduction in the past 5 years), and current market prices ought to be used. Wisconsin data is skewed because most systems were sized to be 4 kW and smaller, making the cost per kW higher than the national average.[4]
- Full lifetime costs of technology including maintenance, daily operation, fuel, insurance, and other costs should be included in the incremental cost of each technology.
- Mechanisms should be in place to update costs of technologies like solar photovoltaics which have been changing rapidly to reflect accurate TRC ratios.

2. Role of Focus on Energy in Positioning Wisconsin to Cost-Effectively Meet Federal Carbon Standards.

a. Focus on Energy could be a valuable tool for cost effectively meeting federal carbon standards, depending on how those federal carbon standards are written. Focus on Energy should retain flexibility throughout the 2015-2018 period to take advantage of these federal carbon standards if/when they are announced.
b. Carbon reductions for Wisconsin as affected by Focus on Energy will likely be maximized by offsetting coal electricity generation. All renewable energy resources can play an important role in offsetting carbon emissions. Depending on the federal carbon standards, biogas from anaerobic digesters may be a significant cost-effective resource for CO2-equivalent reductions because methane has 22 times the emissions forcing of CO2.

3. Energy and/or Demand Emphasis

[3] Focus on Energy 2012 Economic Impacts Report, available at https://focusonenergy.com/sites/default/files/FOE_XC_CY12_EconomicImpacts-Final_24JAN2014.pdf
[4] Each installation has a similar amount of fixed costs, and the larger the installation, the lower the installed cost per kW. Since Wisconsin's residential installations have been relatively small jobs at 4 kW or less, they represent a higher cost per kW than what is seen nationally.

There are benefits to emphasizing both energy and demand in Focus on Energy, and goals should be established for both. Emphasizing demand would delay or offset new gas-fired generation capacity, and programs highlighting solar photovoltaics and demand response would be ideally suited for this. Emphasizing energy would delay or offset baseload and intermediate duty generation plants. All renewable resources contribute to this goal by generating renewable electricity. Carbon dioxide equivalent reductions would be maximized by offsetting coal electricity, which all renewable resources do, and capturing methane, a feature of anaerobic digesters.

A thorough analysis quantifying the monetary benefits of avoiding gas-fired or baseload power plants, maximizing energy savings, and maximizing emissions reductions would help this discussion. Please note that we do not consider a peaking plant to be an appropriate proxy for generation offset by program-driven energy efficiency and renewables. RENEW Wisconsin expects the next wave of proposed capacity increases will specify either central station gas-fired power stations designed for intermediate duty cycles or utility-scale renewables.

4. <u>Overall Energy Goal Rather than Specific Goals for kWh, kW, and Therms</u>

No comments

5. <u>Examine Effective Rate Mitigation Strategies that Could be Achieved in the Planning Period</u>

a. According to many national and international studies, end-use energy efficiency is among the most cost-effective means of mitigating rate increases and achieving CO2 reductions.
b. Rate mitigation can occur through delaying or preventing the construction of new power plants, and if federal carbon standards come into place, by reducing carbon to avoid costs or fees of such standards.
c. As stated above, depending on the federal carbon standards, biogas may be a significant potential resource for CO2-equivalent reductions and rate mitigation because of the potential methane reductions having 22 times the emissions forcing of CO2, which may lead to having greater value in meeting federal carbon standards.

In closing, RENEW Wisconsin appreciates the opportunity to respond to the Commission's Request for Comments on these important questions that will guide the Focus on Energy Program from 2015-2018.

Respectfully Submitted,

Tyler Huebner
Executive Director

Appendix A: Comments related to a potential renewable energy revolving loan program.

A revolving loan program could be an effective supplement to rebates to drive adoption of more renewable energy projects:

- A revolving loan fund can be an effective supplement to Focus on Energy's incentives. **However, loans can't substitute for incentives.**
- **A supplemental revolving loan program based on the Iowa Alternate Energy Revolving Loan Program (AERLP) could be successful in Wisconsin.**
- The most difficult part of a revolving loan program is obtaining the initial capital to seed the fund. **The Focus on Energy program already has a large pool of available capital that can be used to set up a revolving loan such as this.**
- Cost-effectiveness of a loan program: The evaluation consultants and/or experienced national experts should be consulted regarding how the costs, benefits, and cost-effectiveness ratios would be calculated from a revolving loan fund using public benefit dollars.
- We also note that revolving loans have been successful for energy efficiency programs in other parts of the country as well, and the Wisconsin State Energy Office has one in place for clean energy manufacturing efficiency and renewables projects.
- Details regarding the Iowa AERLP program appear below:
    - The Iowa AERLP issues loans at 0% interest through the AERLP for half the loan amount, and a bank issues a loan at market rate for the other half (up to $1 million maximum project size).
    - From 1996 to 2012, the AERLP had issued $28.4 million in loans supporting 195 renewable energy projects across the following technologies:

Biomass	22
Hydro	1
Solar	16
Small Wind (20 kW or less)	40
Large Wind (20 kW or more)	109
Hybrid / combination	5

    - In 2013, Iowa's AERLP approved approximately $1 million in loans for nearly 30 solar PV projects. The director of the Iowa program estimates 90% or more of those solar PV projects were in Alliant Energy's electricity territory, where incentives up to 30% of the solar project cost were available through the utility's rebate programs.[5]
    - **The loan is an effective supplemental finance tool, but does not replace other incentives.**

Iowa's renewable energy incentive structure includes:
State investment tax credit of 15%
Utility-managed rebate programs
Net metering
AERLP Revolving Loan for any customer wishing to finance the remaining cost of their installation
Federal tax credits and accelerated depreciation

[5] Phone conversation between Tyler Huebner, RENEW Wisconsin, and Bill Haman, Director of Iowa's AERLP, on Wednesday, February 12th, 2014.

- Technical & Financial Review: The Program Director, who is a licensed Professional Engineer, completes all the technical reviews of the applications. The banks perform financial reviews of the applicant, credit history, and other financial criteria. According to the Iowa AERLP program director, this division of responsibility has worked well. This could work similarly in Wisconsin where Focus on Energy contractors with technical expertise can review the projects and banks can review the financing qualifications of applicants.
- The loans go out at 0% interest through the AERLP for half the loan amount, and market rate for the other half, working with banks (up to $1 million maximum). Thus, there is no interest accruing back to AERLP, and therefore the staff is paid from Iowa State University, where the Iowa Energy Center is housed. The enacting legislation in Iowa did not contemplate administrative funds. We do not think this would be an issue for Focus on Energy as administrative funds are allowed expenses.
- According to the Iowa AERLP Program Director, the Iowa program has helped banks get more comfortable with renewable energy projects because of the education and technical review offered by this program. **We think a similar program in Wisconsin can also increase banks' comfort with renewable energy projects, especially in rural areas. This is very important to building and sustaining a renewables marketplace over time.**